Notes

Atomic Energy Control Board | Commission de contrôle de l'énergie atomique

March 29, 1985

INFORMATION BULLETIN 85-1

COMMENTARY ON SOUTHAM NEWS SERIES,
MARCH 2-6, 1985

Between Saturday, March 2, and Wednesday, March 6, 1985, the Southam News chain of daily newspapers carried a series of articles concerning the Atomic Energy Control Board, all of which were based on an interpretation of minutes of Board meetings between mid-1980 and mid-1983, some 19 meetings in all.

Reporters Peter Calamai and Margaret Munro were the first journalists ever to have access to Board minutes, obtaining them through a private researcher who had used the power of the federal Access to Information Act. With this unique documentation and the assistance of senior AECB staff, they were in a position to write an interesting and informative article or series of articles covering matters never before seen from the Board's internal perspective.

Unfortunately, the journalists rushed into print without seriously verifying their impressions with people who were familiar with the record, the subject matter and the history involved. One senior Globe and Mail reporter who reviewed the Board minutes was astonished that Southam News had jumped to some of the conclusions it did.

The overall impression left by the faultfinding approach of the authors is that in the nuclear energy field, things are not in good shape; that despite the excellent safety record of the Canadian nuclear industry, people should be worried or on their guard because the regulatory authority has failed them.

This negative impression is largely fostered by a failure of the writers to recognize old news and resolved items, by their basic lack of knowledge of the subject, by their use of sensationalism, by their inaccurate and unprofessional approach to the topic in various places, and by plain misreading of the record.

The impact of the resulting tone of the series is illustrated by the promotional box accompanying the first scory on the front page of the Ottawa Citizen, where the editor was prompted to write: "SPECIAL REPORT...The Citizen features a Southam News series showing how Canadians pay a price for such slack regulation." (emphasis added) It is significant that nowhere in any of the Southam News

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Comme ce Bulletin d'information commente une série d'articles publiés seulement dans certains journaux de langue anglaise, il n'est pas disponible en français.

articles was this last postulation either explored or explained in factual detail.

Letters to the editor gave an idea of the reaction of some readers: "industry out of control", "scandal", "already killed thousands", "expensive board members", "negligent attitude", etc. One reader demanded the government "take legislative steps to ensure the effective and prompt enforcement of all rules and regulations..."

The AECB has analyzed the Southam News efforts and assembled comments on the most significant points of error or misinterpretation. They are here presented in point-counterpoint fashion, to document the AECB's views for anyone interested in a balanced review of the series of articles.

> For consistency, all references and headlines are taken from the Ottawa Citizen, though similar treatment was accorded the stories in other newspapers of the Southam chain.

Headline, March 2:

"Board ignores nuclear reactor safety advice"

AECB: The headline refers to the fact that the five-member Board did not accept the recommendation of AECB staff that the power of reactors at the Bruce Nuclear Generating Station 'A' should be limited to 65% of full power. It is not correct, however, to say that the Board ignored the advice since it did consider and debate the advice at length.

Southam News: "Four of Canada's largest nuclear reactors have been allowed to operate for eight years with what nuclear regulators describe as an "inadequate" safety system."

AECB: The "inadequate" description is based on the fact that the AECB staff recommendation in 1976 and 1977 was that because of uncertainties in the effectiveness of the emergency core cooling system (ECCS), the Bruce 'A' reactors should be limited to 65% full power. The Board, however, after much deliberation and after hearing the views of AECB staff, the Board's Reactor Safety Advisory Committee, and after considering the probability and consequences of the postulated accidents, concluded that the plant was adequately safe to permit operation at 88% full reactor power (which is sufficient to produce full electrical power). Although the Board considered that the ECCS was adequate to permit

operation at 88%, the Board did require Ontario Hydro to design and install an improved ECCS. The design could not be completed until necessary research work was done. The improved ECCS have now been built, are being commissioned, and will be put in service in the first unit in 1985 and the last unit in 1986.

Southam News: "The 740-megawatt reactors have been operating with the inadequacies since they went into operation in 1976 and the control board still wants $100-million worth of upgrading to prevent a reactor "melt-down." Such an accident might cause widespread radioactive contamination."

AECB: It is wrong to say that the upgraded system is required to prevent a reactor "meltdown". Before this plant (and all other Canadian plants) was licensed, an analysis was done of the consequences of a loss-of-coolant accident (LOCA) combined with complete failure of the ECCS. The analyses show that even without any ECCS a reactor meltdown would not occur.

Southam News: "The minutes of meetings held between 1980 and 1983 reveal that the board's most senior staff advisors have been trying for years to get the reactors slowed down until the repairs are done."

AECB: Not true. When the Board concluded in 1977 that operation at 88% was acceptable, the staff accepted this ruling and did not try to reverse it between 1980 and 1983.

Southam News: "With all the concern over the new reactors, both AECB and Hydro underestimated the significance of early signs of problems with the pressure tubes in the aging Pickering A reactors. In August, 1983, one of the tubes ruptured. The crippled reactor and another like it are now undergoing $750 million worth of repairs."

AECB: Misinterpretation. The early signs of problems in Pickering 'A' (in 1973 - 1975) were dealt with and have not reoccurred there. The August, 1983, failure was not related to the problems encountered in 1973-75.

Southam News: "The board minutes, which say the nuclear regulatory agency was operating in a "crisis management" mode in the early 1980s, indicate it was the Bruce A reactors that most worried the nuclear police."

AECB: Southam News fails to differentiate between the five-member Board and its staff. Comments in the minutes on crisis management referred to the fact that because of late submission of information by licensees, and the poor quality of some of the information, it was no longer possible to establish a reliable schedule for completion of reviews by AECB staff. The staff was doing the best that it could, but it could no longer assure licensees that the review process would be compatible with licensees' schedules for start-up of the plants. Delays would represent serious financial penalties, and delays appeared likely. The Board was advised accordingly.

Southam News: "Meanwhile, AECB officials are hoping there is not a major failure at Bruce A, which has recently been found to have unexplained cracks in reactor pressure tubes."

AECB: It goes without saying that AECB officials are hoping there is not a major failure at any nuclear facility, but they do not rely on hope alone. Analyses, inspection, testing, observation, experience, and regulatory action are all taken into account. While cracks were found in two pressure tubes at Bruce 'A', these tubes have been replaced. The cracks were similar to those which were found in many pressure tubes (which were then replaced) of Pickering 'A' between 1973 and 1975. On the basis of Pickering 'A' and Bruce 'A' experience, if further cracks occur they are expected to result in leaks only, and severe failure would not be expected.

Footnote - The lead story in the Southam News series focuses extensively on the issue of ECCS at Bruce 'A', playing it up as a revelation of startling proportions. Overlooked completely is the fact that the Bruce 'A' question has been very much in the news in the past. The topic was addressed by the Ontario Legislature's Select Committee on Ontario Hydro Affairs (in 1979 and 1980,) which examined relevant documents, including the AECB staff report which recommended a limit of 65% full power, and interrogated witnesses from the AECB and Ontario Hydro. That Select Committee concluded, after extensive hearings, that Ontario reactors were acceptably safe. The Select Committee's activities were given extensive media coverage, and the ECCS topic was aired in print and broadcast, including an interview with Z. Domaratzki of the AECB staff on the CBC program "As It Happens".

Headline, March 2:

"From crisis to crisis: the secrets of Canada's nuclear regulators"

Southam News: "How good are Canada's nuclear regulators?...These five (Board members) meet beneath a map of Canada, with colored pins for every nuclear reactor, every uranium mine, every radioactive waste dump, heavy water plant, research accelerator, uranium refinery - a forest of 114 sites that could glow in the dark if the nuclear police failed."

AECB: The expression "glow in the dark" is wrong; it is a phrase unfortunately perpetuated by writers on nuclear energy who should know better.

Furthermore, the ultimate responsibility for safety of nuclear facilities rests with the licensees. The AECB has the responsibility of auditing the performance of licensees to ensure that they fulfill their responsibility. Safety would be compromised only if both groups failed to live up to their responsibilities.

Southam News: "Failure has been closer than most Canadians realize. The overworked nuclear regulators are lurching from crisis to crisis, under attack from both the nuclear industry and environmentalists..."

AECB: The nuclear regulators are working hard but certainly are not "lurching from crisis to crisis". The AECB is going about its duties in an organized and professional manner.

Rather than being a negative point, the fact that the AECB is criticized by both the nuclear industry and environmentalists may be an indication that it has struck the right balance between the two, in the public interest.

Southam News: "The four giant Bruce nuclear power reactors on Lake Huron have operated for eight years without the "brakes" required by the AECB licence in order to stop a meltdown of the reactor cores and avoid potential catastrophe."

AECB: The Bruce ECCS question, including use of the inapt term "meltdown", is dealt with above. However, the analogy with brakes on a car is not a good one. Vehicle brakes are used routinely, while in 100 reactor-years of operation there has never been an occasion where ECCS was required. The ECCS would be required to function only in the event of a major (and improbable) accident. There isn't a good analogy with reference to a car, the closest being perhaps a (hypothetical) "spare" radiator, activated either automatically or at the flip of a switch.

Southam News: "Continuous lobbying from the public utilities in Quebec and New Brunswick pressured the board into licensing two nuclear power stations with only skeleton trained staff; the Quebec plant later closed for 22 days because one supervisor fell sick."

AECB: A misinterpretation. The New Brunswick Electric Power Commission operating staff was adequate at the time its Point Lepreau plant went into operation. Hydro Quebec was permitted to start up the Gentilly-2 plant even though it had only four of the normally five certified shift supervisors. Four shift supervisors are sufficient to have one on each shift (as required by the licence). However, four are inadequate in the event of the illness of one, and when illness was encountered, the Gentilly plant was shut down.

While the utilities were not reluctant to point out the consequences of not being permitted to operate their plants, their actions were not construed as pressure to licence regardless of staffing arrangements. The Board licensed the plants only when it concluded that they would be operated safely.

Southam News: "Little polluters, like an oil industry user of faintly radioactive sand in Alberta, lose licences for small infractions, but the worst nuclear polluter in Canada - Crown corporation Eldorado Nuclear - got more licences even as its radioactive uranium dust settled on a Port Hope day care centre."

AECB: The Board can use various sanctions to ensure regulatory compliance including suspension, revocation or amendment of a licence, as well as prosecution. It uses whichever approach is most appropriate to the infraction with the objective of correcting the situation and ensuring that it does not happen again. In the case of the Alberta licensee, the licence was suspended until the Board was convinced that the licensee could resume operations safely. (In this case there had been several regulatory infractions, and contamination of the premises.)

Eldorado Nuclear Ltd. had an application before the Board to construct a new refinery at Port Hope at the same time as it was experiencing difficulties with the older plant at the same location. The Board required thorough investigation of the difficulties, required the installation of additional protective equipment, and did not give approval for the new plant until it was convinced that the combined environmental impact of both plants was acceptable. The day care centre is one of a number of public buildings close to the plant.

The terms "polluter" and "worst nuclear polluter in Canada" are highly judgemental. They are inflammatory if no recognition is given to performance with respect to the legal requirements.

Southam News: "The minutes show that most times during the early 1980s, the Atomic Energy Control Board wound up supporting the industry it is supposed to regulate."

AECB: If this paragraph is meant to imply that in most cases the Board granted licences which were requested, it is fair comment. That is not a surprising situation given that the Board outlines its requirements to licensees, and licensees recognize that they must meet the requirements to get a licence. The Board is, after all, in the "business" of granting licences.

If another inferrence is appropriate, one must ask the question "Does regulation require non-support of the regulated?" (Are driver's licence examiners and policemen necessarily non-supportive of motorists?)

Southam News: "But the minutes reveal an inexorable grinding down of this resistance from within and without.

"From outside, Eldorado and Hydro moan about over-zealous regulation, threaten appeals to the political level, defy orders from AECB staff, and warn of dire economic consequences over licensing delays."

AECB: There is no evidence in the minutes to support the implication that anyone succumbed to pressure from within or outside the AECB. Many licensees complain about regulatory actions with which they disagree and they may engage in protracted debate with AECB staff over the technical issues. It is incorrect to suggest that they defy orders that they are legally obliged to carry out.

Southam News: "The nuclear police struggle on, bitter over cleaning up the mess left by mining profiteers, betrayed by federal reneging on mine-pollution programs and swamped, just simply swamped."

AECB: This bleak picture does not represent the actual situation. While it is true that many complex issues face the Board, it deals with each of them in a professional fashion. The federal government has not reneged on mine pollution programs and is, in fact, funding a major research program in this area.

Southam News: "Little wonder that in the summer of 1982, AECB had nothing to offer P.E.I. when the premier's office asked about emergency plans in case of an accident at Point Lepreau, New Brunswick's new nuclear power station just downwind."

AECB: One can certainly question the accuracy of the term "just downwind", (and presumably "upwind" was meant,) but it is a fact that P.E.I. is nearly 300 kilometers to the north-east of Point Lepreau. The AECB staff had nothing to put forward because, in response to the request, it stated that accidents at Point Lepreau would not pose a hazard to residents of P.E.I.

Southam News: "If any one image haunts the nuclear police, it may be the memory that 12 of 16 crucial valves designed to relieve pressure once failed simultaneously at the Bruce nuclear power station on the shores of Lake Huron.

"Such an event couldn't happen, the design reports had confidently predicted; it was "incredible". For the nuclear police, the incredible really happens."

AECB: A dramatization. The valves were found to be in a failed state, but they had not been required to act in response to an emergency. They would be required to act only in the event of a severe accident, and the four remaining valves would have been sufficient to prevent serious consequences.

This incident serves as a useful reminder that unexpected failures can and do happen. It is because the AECB recognizes that unforeseen events will occur that it requires defence-in-depth in nuclear power plants.

Headline, March 4:

"Eldorado "steamrolled" uranium refinery plans over control board's fears"

Southam News: "Eldorado Nuclear used a "steamroller", as National Research Council president Dr. Larkin Kerwin once described it, to get its way with the country's nuclear regulators."

AECB: Dr. Kerwin used the term "steamroller effect" to describe, as he saw it, the apparently slow but relentless progress of the step-wise licensing of a new Eldorado refinery in Port Hope. At no time did he accuse the company of using this as a tactic to achieve its objectives. For the case in point, the Board withheld construction approval until Eldorado had complied with all requests made by the Board.

Southam News: "The minutes of the board meetings, made public under access-to-information legislation, show how Eldorado repeatedly violated the control board's rules and regulations."

AECB: Eldorado did not violate the Board's rules and regulations. In the period in question, Eldorado experienced a number of problems with the existing plant in Port Hope at the same time as it was applying for a licence to construct a new plant. The company resisted and complained about directives from the Board, but eventually complied with those directives.

Southam News: "Lack of access to the federal energy minister, the AECB's political master, prevented the board from getting the help and direction it needed when it locked horns with Eldorado over the company's plans to expand its Port Hope refinery and open a new facility in Blind River, Ont.

"Progress in the form served by Eldorado Nuclear was just too much to handle for the under-staffed board, which was also trying to stay on top of the country's troubled and expanding nuclear-reactor program."

AECB: Access to the Minister did not at any time prevent the Board from making the appropriate licensing decisions, in which the Minister never participates. The Eldorado Port Hope licensing decisions were difficult to make but were not "too much to handle".

Southam News: "The NRC president (Dr. Kerwin) said "the only concession" he was willing to make would be to support the idea of the federal government compensating Eldorado to locate the expansion at a safer location outside town."

AECB: Incorrect; plant relocation was never suggested. The minutes record that Dr. Kerwin supported the idea of government compensation to the company for the extra costs incurred due to altered government siting decisions and the effect these may have had on regulatory approvals, e.g. the cost of any additional safety measures required because of urban rather than rural siting.

Headline, March 5:

"Atomic watchdog failed to monitor small-time operators, records show"

AECB: This headline and the simultaneous version in the Montreal Gazette, "Small firms escape eye of atomic watchdog", are not only demonstrably incorrect, they are unsupported by the accompanying Southam News article which, if anything, suggests the AECB is tougher with small operators and has systems in place to ensure compliance with regulations.

Southam News: "The case (suspension of a licence) and the inquiry stand out as one of the few times between 1980 and 1983 that the board suspended the licence of one of the many operators using radioactive materials in laboratories, pipe welding and gauging operations."

AECB: The implication here seems to be a lack of diligence on the Board's behalf, but the author fails to appreciate the AECB's procedures. During the period in question, there were only two cases warranting suspension, and by the terms of the Atomic Energy Control Regulations, a licensee in such a circumstance is entitled to a hearing by the Board. There are many other compliance actions undertaken by AECB staff which do not require the Board's attention and are therefore not detailed in the minutes.

Southam News: "The board minutes show that in the early 1980s, the country's nuclear reactors (sic) had neither the staff nor the money to properly monitor small-time radiation users."

AECB: The source of this apparent misinterpretation is not clear. By the early 1980s, in addition to radioisotope licence project officers, the Board had a well-established Compliance Services and Laboratories Division in place, operating out of Ottawa plus two (now three) regional offices, and was adequately resourced for monitoring small users of radioisotopes.

Southam News: "The minutes also show that while the board will at times get tough on small operators, it is more lenient with the big-time nuclear industries."

AECB: Incorrect. This comment refers to the fact that the Board did not suspend Eldorado's licence despite the fact that Eldorado had problems with uranium emissions. Eldorado was, however, subjected to other regulatory actions including directives that were appropriate to the situation. The "small operator" cases used for comparison by Southam News involved actual regulatory infractions.

Headline, March 6:

"Atomic board hid safety concerns: records"

Southam News: "The Atomic Energy Control Board successfully manipulated the media and misled the public during the 1980s by concealing its own doubts about the safety of some of Canada's largest nuclear installations."

AECB: This is an accusation bordering on the malicious, and is an example of the sensationalism spoiling the Southam News series. The Board is not in the habit of media manipulation and being misleading to the public. As for concealing its own doubts, the matters on which the Board made rules are complex matters of importance to health and safety. As reflected in the minutes, these matters received extensive discussion by Board members where differences of opinion were aired and debated. However, the Board operated on the basis of collegiality, and when a decision was made it became the decision of the Board and not of individual members. As a result, when decisions were announced, the announcements did not include any discussion of how members voted, nor the viewpoints of any individual members.

Southam News: "But the passion for secrecy among Canada's nuclear police still lingers, despite this week's general release of minutes from a November board meeting and a promise that all future minutes will automatically be made public.

"A comparison of these most recent minutes with past meetings suggests the control board has begun a deliberate policy of sanitizing minutes to eliminate revelations of internal disagreement."

AECB: The Board has agreed that minutes will be routinely made public in both official languages as soon as they are approved. In order to satisfy this policy and to respect the requirements of the Access to Information Act and the Privacy Act, for non-disclosure of certain information, the minutes will not be as detailed as they were previously. There is no intention, however, to censor differences of opinion. Southam News has simply jumped to a conclusion on the basis of one set of minutes where no disagreement occurred.

Historically, the Board minutes have been written as internal documents for readers who are familiar with the subject matter and therefore unlikely to misinterpret them. It is clear from media accounts so far that there is considerable room for misinterpretation by persons not familiar with the subject. Hopefully, future minutes will avoid that possibility.

Southam News: "The minutes also reveal that board members distrust media reporting about nuclear issues and want to keep the public in the dark about some problems at nuclear installations.

"On July 16, 1980, the board received the first of regular annual reports on five nuclear generating stations then under construction in New Brunswick, Quebec and Ontario. The reports, to include information about potential problems with this multi-million-dollar program, "will not be made public," the minutes record."

AECB: "Keeping the public in the dark" is a favorite throw-away accusation for journalists, but it rarely stands up under responsible examination. The Southam News article is correct in stating that reports tabled with the Board at the July 16, 1980, meeting were not made public. These reports were status reports on reactors under construction and were tabled for information for and comment by the Board, but not for any decision by the Board. As such, the reports were preliminary in nature. At a later date when the projects neared completion and a decision of the Board was required, final documents tabled with the Board at that time were made available to the media and the public.

Southam News: "On April 1, 1981, the board insisted that news media be told about appearances by citizen's groups or environmental lobbies before the AECB only after the event."

AECB: This is correct as far as it goes, but criticizes the Board for something which soon became history. In April, 1981, the Board agreed on basic procedures for appearances before the Board, and decided that the news media should not be present during an appearance but should be informed of what transpired after the meeting. Purpose of this decision was not to impede the availability of information but to ensure a serious and businesslike approach to the discussion involved, something which concerned the Board on the basis of certain media-inspired performances it was aware of. However, the Board's own public consultation process resulted in changes to the policy, and the "Policies and Procedures on Representations and Appearances" which came into effect May 17, 1983, places no explicit restrictions on news media coverage.

Southam News: "A patronizing attitude pervades dealings with environmentalists in the minutes. If board members meet with citizen groups opposing a nuclear facility, they hear presentations but refuse to even ask questions as a matter of policy.

"But members do question industry representatives who immediately follow the environmentalists."

AECB: The Board has no bias towards "environmentalists". Over the period covered by the subject minutes, the Board heard both constructive and non-constructive comments from public groups and always attempted to convey its reaction, if not at a meeting, then later in writing. The Board has no policy against questioning presentors. Indeed, the Board's "Policy and Procedures on Representations and Appearances", which was under development and came into effect during the period in question, states clearly, "The AECB will consider the information presented (at the appearance) and may ask questions."

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AECB
Office of Public Information
Ottawa

(613) 995-5894